

San Juan Agricultural Watershed Plan Annual Report

June 2005

The San Juan Watershed Working Group, in cooperation with the San Benito County Farm Bureau's Agricultural Water Quality Program, prepared the following watershed plan.

Description of the San Juan Watershed

The San Juan Watershed runs from Fremont Peak to the Pajaro River. It crosses the northwestern edge of San Benito County. Grazing and a state park dominate the top of the watershed. San Juan Creek has no primary tributaries. San Juan Creek flows to Bull Creek and then directly to the Pajaro River just west of the junction of the San Benito River and the Pajaro. In the past, in high flow events, the San Benito River has also overflowed into Bull Creek before joining the Pajaro River.

The lower watershed of the San Juan is a mixture of agricultural (primarily orchards, nurseries/greenhouses, vineyards and row crops), rural residential, residential (San Juan Bautista), and, at the very bottom, agricultural processing plants. The upper watershed is intermittently dry in the summer but the lower portion runs all year. The San Justo Reservoir, near the top of the watershed, provides water for continued irrigation. However, after the introduction of the San Felipe Pipeline in June 1987, more and more growers upstream of the area have used the imported water instead of pumping groundwater, resulting in excessively high groundwater in the area.

Anticipated changes to the watershed include continued pressure for rural and suburban residential development, resulting in increased impervious surface and may have impacts on the amount of runoff carried by the watershed

The watershed has been identified as having critical habitat for steelhead and red-legged frogs.

San Juan Creek is a tributary to the Pajaro River on the Central Coast of California. The San Juan Creek is not currently listed as an impaired waterbody, primarily because the official USGS maps still show that the San Juan flows to the San Benito Rivers rather than directly to the Pajaro. As a result, the nutrient loading that is now known to be from San Juan Creek was listed as being from an unidentified source. Now that it has been identified as an independent source, the Regional Board is currently considering listing the San Juan as impaired as a result of the nutrient loading. The Pajaro River is listed as an impaired waterbody by the State of California as designate for the U.S. EPA under provisions of the federal Clean Water Act. The pollutants of concern on the Pajaro are nutrients, fecal coliform and sedimentation/siltation. The watershed is listed as an impaired water body for these three pollutants. The state is required by law to set Total Maximum Daily Loads (TMDLs) for the amount of each of the listed pollutants the river can handle on a daily (or annual) basis. Both the nutrient and sediment TMDLs are underway.

The Nutrient TMDL was supposed to be released in May 2005 but the Central Coast Regional Board (Regional Board) now says that it will be delayed for at least one year as a state task force discusses how to set water quality standards for nutrients and bio-stimulation (there are currently only standards for nitrates). The Sediment TMDL, which was also supposed to be released in May 2005, is currently waiting for Technical Peer Review and legal review. The Regional Board staff is hoping to have that document ready for public discussion in the fall.

Goals of the San Juan Watershed Working Group

We have identified 29 active growers in the San Juan Watershed. They farm more than 10,852 acres (note that we only have acreage that is registered by the Ag Commissioner for pesticide or organic and self reported acres, we do not have all of the ranch and non-pesticide using acreage so actual farmed acreage in the watershed is greater than 10,852). Of those 29 growers, 23 (79%) are active in the watershed workgroup. The 23 growers who are active cultivate 10,252 acres – which is 94% of the identified acreage in the watershed. Note that, in this watershed, the growers generally have large acreages. We only identified one grower with less than 10 acres and only 3 with less than 20 acres.

Established in July 2003, the San Juan Watershed Working Group is an association of agricultural landowners, managers and operators within the watershed, who have organized to address agricultural non point source pollution concerns. The agricultural landowners in the San Juan Creek watershed want to proactively address water quality problems in a way that is practical and feasible for agriculture. As a watershed-working group, the agricultural landowners are developing this watershed plan to submit to the Central Coast Regional Water Quality Control Board for consideration.

It is the goal of the San Juan Watershed Working Group to improve water quality by voluntarily implementing farming practices that successfully reduce sedimentation and agricultural non point source pollution. The Watershed Working Group seeks to achieve and sustain environmental improvements while maintaining the economic viability of the agriculture. The Working Group agreed on the following items as the next steps for protecting water quality in the Pajaro watershed:

Watershed Working Group Action Items

1. Compliance with Water Quality regulations: The focus of the past year has primarily been on completing Notice of Intents, Short Courses, and Farm Plans. Growers began to develop individual, confidential Farm/Ranch Water Quality Plans, or Vineyard self assessments; attended short courses or Central Coast Vineyard team's Program; submitted their Notice of Intent to the Regional Water Quality Control Board; and developed and implemented "self monitoring" to track progress.

Status: 28 growers (23 ranches), representing 94% of the agricultural production in the watershed, attended the short course, 9 have completed their Farm/Ranch Water Quality Plans, and all 23 ranches are active in the watershed-working group.

2. Perpetuate or implement management practices (farming practices) that reduce or mitigate sediment and non point source pollution sources. Monitor success by completing inventory of existing and further commitments for water quality management practices and compile into an annual watershed report to the Regional Board. (August 2003, annually thereafter)

Status: This is the second Annual Report. 16 growers responded to our survey on implementation of management practices. The growers who completed the survey reported that they are cultivating 2,981 acres. Their primary crops are row crops, cattle, nurseries, and orchards. The growers reported implementing or planning to implement the following practices. Note that most growers did not report on the number of acres protected and/or were confused by the question so we will not be asking it on future surveys.

A. Vegetative controls

- a. Annual grassing – 0 growers, NA acres
- b. Cover Crops – 3 growers, 10 acres
- c. Critical area planting – 0 growers, NA acres
- d. Field border strips – 5 growers, 58 acres
- e. Filter strips – 1 growers, 20 acres
- f. Grassed/vegetated waterways – 0 growers, NA acres
- g. Hedgerows – 1 grower, 17 acres
- h. Mulching – 2 growers, NA acres
- i. Seeding Furrow bottoms – 0 growers, NA acres
- j. Windbreaks – 1 growers, 100 acres

B. Field management:

- a. Crop rotation – 4 growers, 10 acres
- b. Move roads/rows – 0 growers, NA acres
- c. Repair of potential erosion sites – 0 growers, NA acres
- d. Row arrangement – 2 growers, 10 acres
- e. Slope management – 1 growers, NA acres
- f. Tailwater Recovery / Reuse – 1 growers, 50 acres
- g. Underground outlets – 0 growers, NA acres
- h. Water conservation -- 2 growers, NA acres
- i. Water/sediment control – 1 growers, 20 acres
- j. Unspecified sediment management - 2 growers, 200 acres

C. Animal Management

- a. Animal Feed out of waterway – 0 grower, NA acres
- b. Animal Access to water - 0 growers, NA acres
- c. Grazing Management – 0 growers, NA acres

D. Pest Management

- a. Integrated pest management – 2 growers, NA acres
- b. Beneficial insects – 2 growers, NA acres

E. Monitoring

- a. Monitoring – 3 growers, NA acres
- b. Pre-sidedress soil testing – 4 growers, 2 acres

3. Lowering the groundwater table at the lower end of the watershed and improving the quality of the water pumped from wells.

Status: The San Benito Water District is working on a plan to improve the County's groundwater. The Group will follow progress and participate as appropriate as well as implementing any water quality measures that are identified as they complete their Water Quality plans.

4. Continue to hold demonstration/educational events and pilot project meetings as needed.

Status: Members of the Working Group have participated in short courses, monitoring workshops, farm tours, harvest festivals and other training/educational events.

5. Develop water quality projects (demonstration & research) on farms with technical assistance from RCD, NRCS, and UCCE.

Status: One grower is working with UCCE and a private consultant to investigate the possibility of putting in treatment wetlands and another grower is considering joining the project. 3 growers have signed up for the Mobile Lab services.

6. Monitoring ecological health of the rangelands, including nutrient cycling, energy flows, etc.

Status: Newly adopted goal, no work done yet.

Grower Profile: Michael Brautovich - Pride of San Juan

Mike Brautovich has his degree in horticulture. He has worked with Pride of San Juan since January 2004. Before that he has managed many greenhouses. He also has a great deal of experience in field production and has been managing field production for many years.

Pride of San Juan first heard of about the water quality regulations and upcoming Short Course through the Regional Water Quality Control Board. They knew immediately that they had to participate because they manage so many properties. Pride of San Juan is the largest grower in the watershed – they manage over 7,000 acres in San Benito County and Yuma Arizona. They have 500 acres of greenhouses as well. Pride of San Juan believes in being very pro-active so, when they learned that taking this class was what they needed to do, they did it.

Since the Short Course, they have put together one general Farm Plan that takes into account how things change with the seasons and the characteristics of each property. They work hard to stay on top of their operations!

Since they have taken the class, they have installed a lot of water quality best management practices. They now drip-irrigate all the rows that are by a waterway and they have rearranged the furrows so that the water cannot easily flow into the creek. They manage their pesticide exposure by treating pests with spot pesticide only where they need them, not on the entire field. They also have planted cover crops in some of the fields.

When their new building was built, they installed a “grit separator”. All of the wastewater from the property is plumbed into the grit separator. The big stuff is screened out of the water so that they can reuse the water in the fields as irrigation water without clogging the irrigation system.



Pride of San Juan Grit Separator June 2005

One of the biggest improvements was in the greenhouse area. When they relocated the greenhouses, they put a new system in that collects all rain water and run off and redirects it down to cement pads. The water that is collected then can be reused it in the fields for irrigation. When they relocated, they had the opportunity to do this and thought it would be a good investment and a good idea and it has worked out well for them. They are reusing all of the excess water on the farm - everything from rain water to waste water.



Pride of San Juan Greenhouse Runoff Collection System June 2005

Since Mike has taken the Short Course, he has shared the information that he learned with his workers. They are working with him to improve the Pride of San Juan systems and are on the cutting edge in their efficient reuse of water.

Existing and Ongoing Water Quality Data Collection

The following programs are collecting data on the watershed. This data will be analyzed as baseline data over the winter and then, in conjunction with the data collected through this program, will be used to compare trends and identify potential issues.

- **Six County Cooperative Monitoring:** The vast majority of the growers in this watershed have indicated on their Notice of Intent that they plan to join the Preservation Inc. Cooperative Monitoring Program. They are awaiting details as to how to sign up.
- **USGS:** no known stations
- **NRCS:** monthly water quality monitoring at four locations along San Juan Creek. Parameters measured include: Nitrate-N, Orthophosphate as PO₄, Ammonia-N, Water Temperature, pH, Electrical Conductivity and Turbidity (NTU). The result of the local NRCS monitoring is attached in an excel document.
- **RWQCB CCAMP:** one monitoring station established on San Juan Creek for 2005. There were none in prior years.
- **Ag Commissioner/County Planning:** general description of groundwater quality and quantity can be found within the County's General Plan.
- **UC Davis Researchers:** one sampling station near the Pajaro confluence. UCCE is very active in the monitoring in this area.
- **San Benito Water District Groundwater/Surface Water Testing:** groundwater test wells are located throughout San Benito County.